

## **COMMITTED ACCESS RATE (CAR) SYSTEM ARCHITECTURE**

### **ABSTRACT OF THE DISCLOSURE**

Systems and methods for committed access rate (CAR) system architecture in an

- 5 IP/Ethernet network with optional dynamic packet memory reservation are disclosed. The method includes classifying each received packet into a quality of service (QoS) group using the packet header information, defining a traffic transmission rate profile such as by using a token bucket model to measure and check the traffic rate profile of the incoming packet against a corresponding service level agreement (SLA), marking the packet as in
- 10 profile or out of profile, and performing packet buffer memory reservation to guarantee memory space for in profile CAR packets. Buffer memory reservation may be via static or dynamic memory reservation. Dynamic memory reservation eliminates the need for hard boundaries to restrict non-CAR packets. A push-out (e.g., head-drop) mechanism may be employed to push out non-CAR packets when the network traffic is congested.